



NASA Space Launch System (SLS): *Progress Report DRAFT*

Todd May
Program Manager
NASA Marshall Space Flight Center

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Space Launch System



SLS Supports NASA's Vision and Mission



*To reach for new heights...
and reveal the unknown so
that what we do and learn
will benefit all humankind*

Exploring Space for America's Future



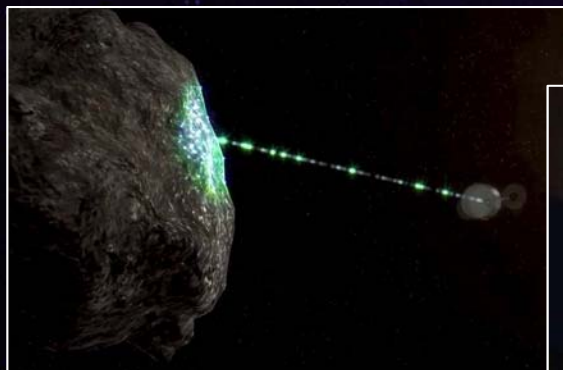
Inspiration



National Security



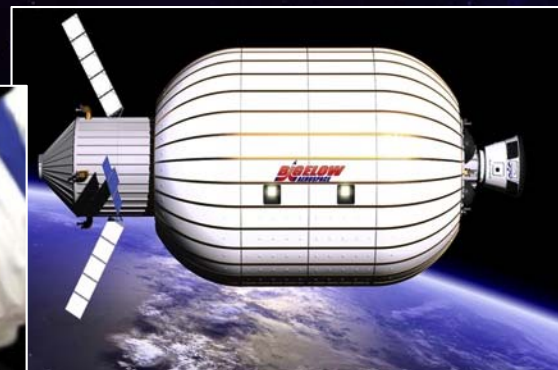
Scientific Knowledge



Economic Prosperity

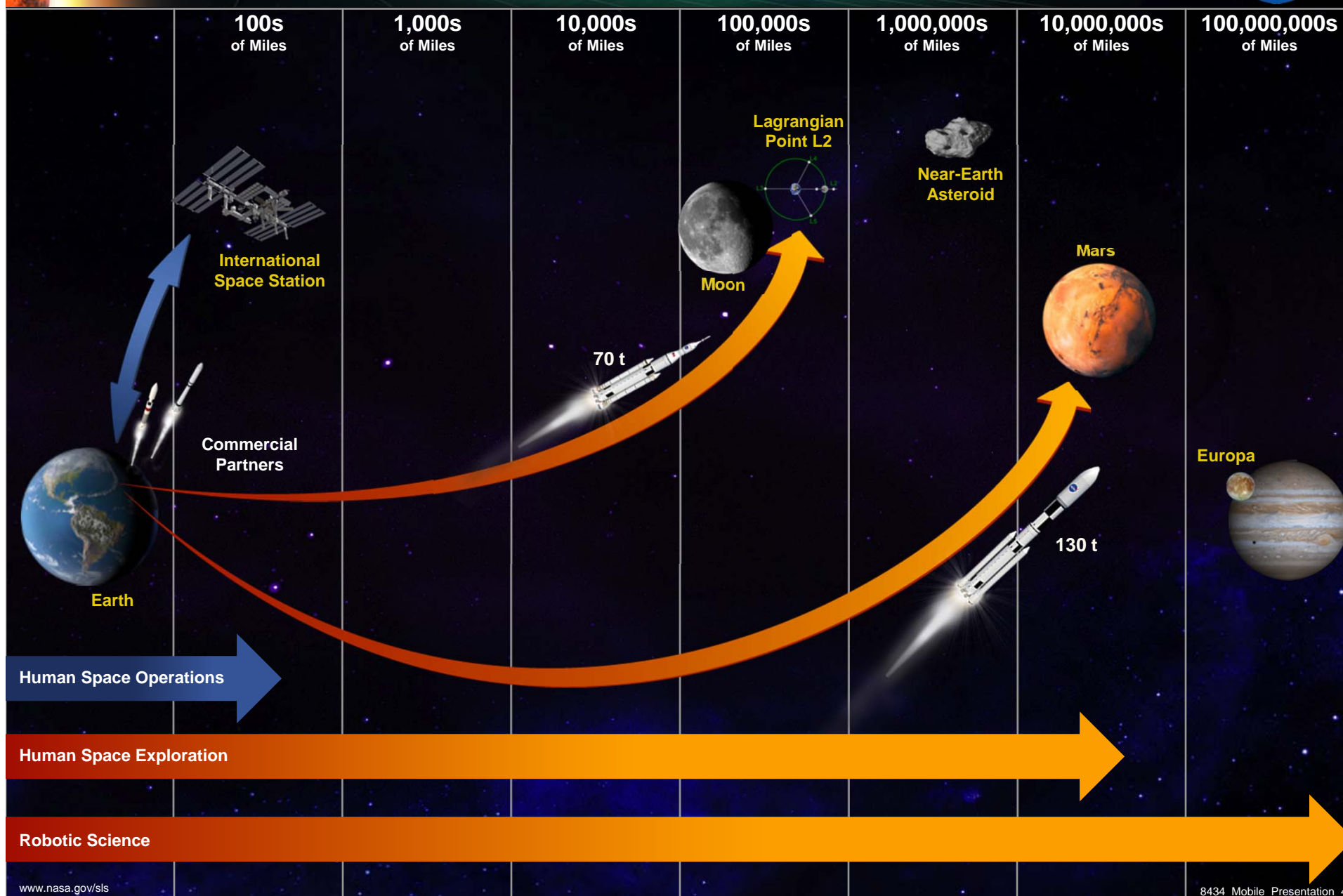


Global Partnerships

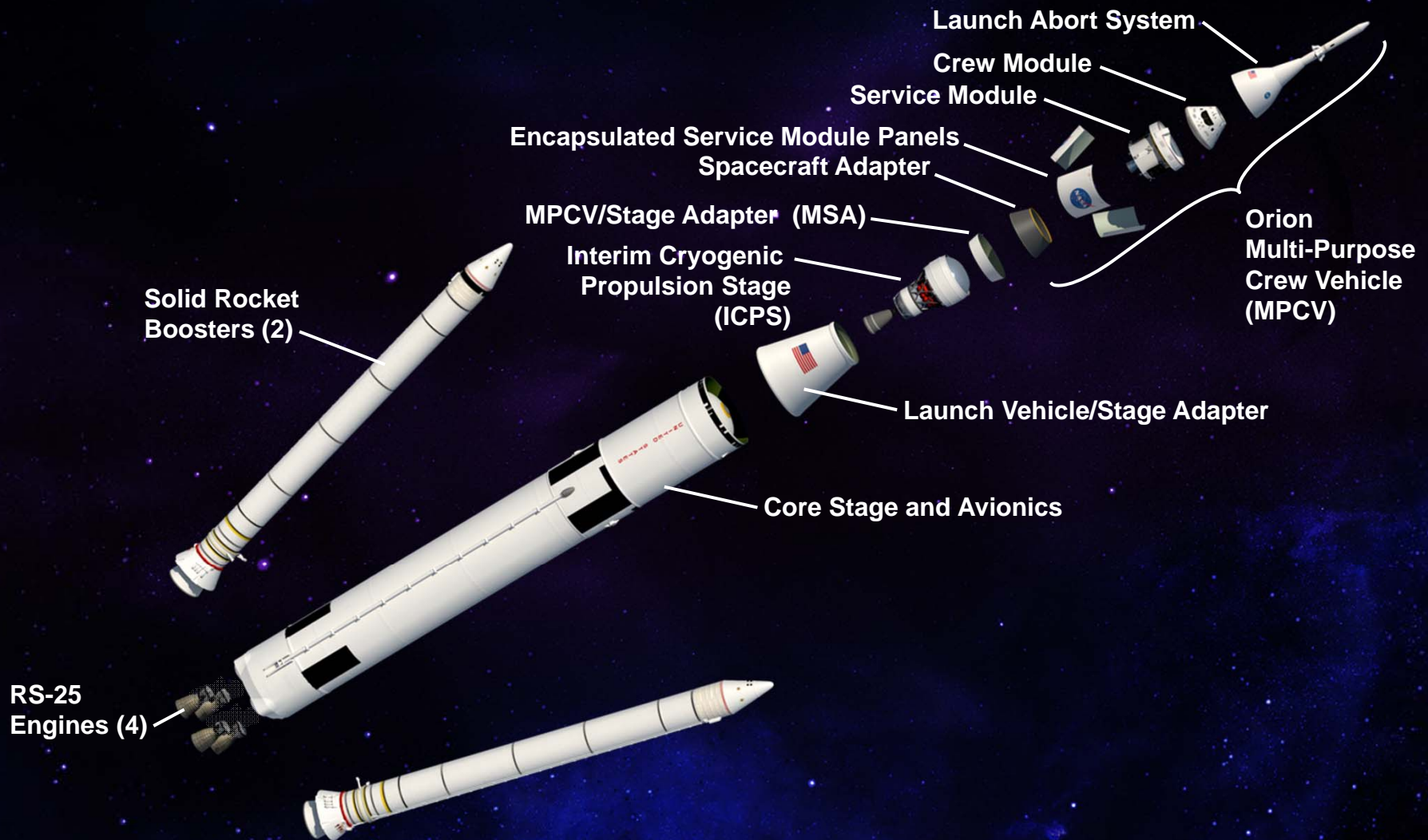
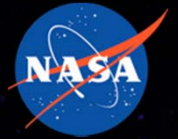


Technology Development

Exploration and Science



SLS 70 metric ton Expanded View



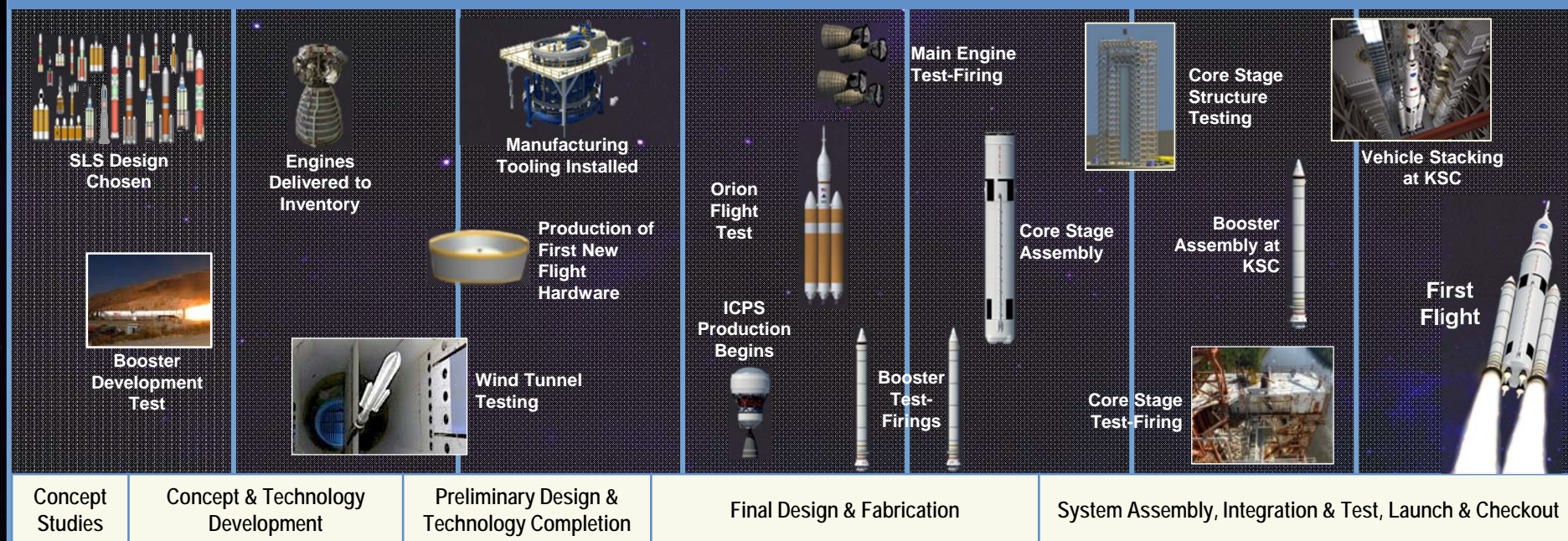
Initial Capability Stands on the Shoulders of Legacy Systems

SLS Development Schedule



2011	2012	2013	2014	2015	2016	2017
▼✓ MCR	▼✓ SRR/SDR	▼✓ PDR		▼ CDR	SIR ▼	PLAR ▼ FRR ▼ Launch ▼

PROGRAM PROGRESS



MCR: Mission Concept Review

CDR: Critical Design Review

SRR: System Requirements Review

SIR: System Integration Review

SDR: System Definition Review

FRR: Flight Readiness Review

PDR: Preliminary Design Review

PLAR: Post-Launch Asses. Review

Concept to Preliminary Design in 21 Months



Liquid Engines

Tested selective laser melted part on J-2X at Stennis Space Center (March 2013), and storing RS-25 Core Stage Engines at Stennis Space Center



Spacecraft & Payload Integration

Performed fit-check of Multi-Purpose Crew Vehicle Stage Adapter for 2014 Exploration Flight Test at the Marshall Space Flight Center (June 2013)



Boosters

Conducted Thrust Vector Flight Control Test at ATK in Promontory, UT (Jan 2013)



Advanced Development

Conducted F-1 engine gas generator hot-fire testing at Marshall (Jan 2013)



Core Stage

Completed welding on first confidence barrel section at Michoud Assembly Facility (July 2013)



Completed Vertical Weld Tool at the Michoud Assembly Facility in New Orleans

Systems Engineering & Integration

Tested buffet model in Langley Research Center's Transonic Dynamics Wind Tunnel (Nov 2012)



Low Technical Risk Due to Hardware Maturity

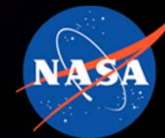
SLS Nationwide Team



- ◆ Engaging the U.S. Aerospace Industry
- ◆ Strengthening Sectors such as Manufacturing
- ◆ Advancing Technology and Innovation

224 Subcontracts in 30 States

SLS Contracts and Suppliers in AL, MS, LA, and FL



Contracts

Alabama

- Dynetics Technical Services

Florida

- Baker Hill Industries, Inc.
- Bernd Group, Inc.
- Channel Comp., LLC
- Concurrent Computer Corp.
- Honeywell International, Inc.
- Hydraulic House, Inc.
- International Bolting Technologies, Inc.
- United Technologies Corp.



Suppliers

Alabama

- Alabama A&M
- All Points Logistics, Inc.
- Amtec Corp.
- Analytix, LLC
- Avans Machine & Tool
- AZ Technology
- B&B Precision Machine, Inc.
- Barnhart Crane & Rigging Co.
- Concurrent Computer Corp.
- Dynetics, Inc.
- GE Intelligent Platforms, Inc.
- Medtherm Corp.
- Packaging Unlimited
- Watring Technologies, Inc.

Florida

- Baker Hill Industries, Inc.
- Bernd Group, Inc.
- Channel Comp., LLC
- Concurrent Computer Corp.
- Honeywell International, Inc.
- Hydraulic House, Inc.
- International Bolting Technologies, Inc.
- United Technologies Corp.

Louisiana

- Geocent, LLC

To be updated

America's Rocket for Deep-Space Missions



- ◆ National platform for space leadership
- ◆ Opens frontiers for commerce and economic expansion
- ◆ Unrivalled capability for strategic missions
- ◆ On track for first flight in 2017
- ◆ Opportunities for large and small businesses

www.nasa.gov/sls

